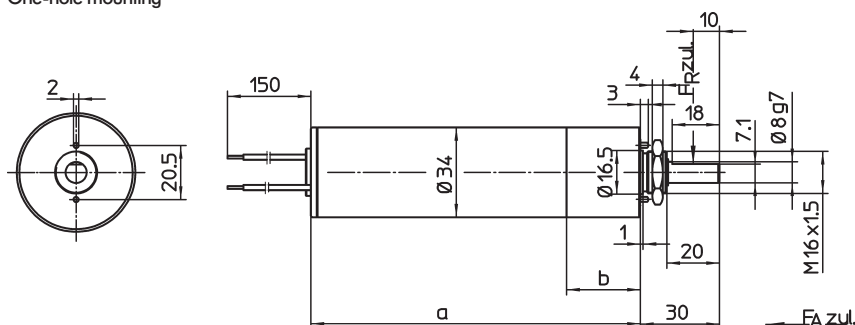


GNM 21 - G 5

DC
Geared Motors
with permanent magnet field

Motor series GNM 21
Planetary gear series G 5
up to 5 Nm

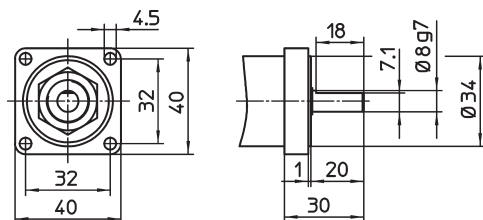
One-hole mounting



Mounting nut for one-hole mounting must be tightened up to 10 Nm.
Excessive torque will damage the bearing.

Type	Gear Ratio	Dimension	
		a	b
GNM 2130C	360:1 - 840:1	140	41
GNM 2130C	1080:1 - 1890:1	147	48
GNM 2130C	5880:1	147	48
GNM 2130C	2430:1 - 4320:1	154	55
GNM 2130C	7680:1 - 54880:1	154	55
GNM 2145C	30:1	141	27
GNM 2145C	90:1 - 210:1	148	34
GNM 2145C	270:1	155	41

Flange mounting



Flange order number: 09798/5
Flange weight: ca. 0,130 kg

type	GNM 21 - G 5
series	C
operation acc. to standards VDE 0530	S1
isolation acc. to standards VDE 0530	F
protection acc. to standards VDE 0530	IP 21
kind of connection	free leads
rotating direction	reversible
bearing (motor)	ball bearing
bearing (gear box)	friction bearing

Motor design:

Pinion milled in the motor shaft. Free leads.

One-hole or flange mounting, see drawings.

Rotating direction:

The rotating direction can be changed by inverting the connections.

Order example

Motor - gear box

GNM 2145C - G 5

24 V, 6000 rpm - 30:1

Special designs on request.

GNM 21C - G5

1 nominal voltage	2 nominal speed	3 nominal torque	4 starting torque	5 nominal torque at undulatory current	6 nominal power	7 nominal current	8 nominal current at undulatory current	9 peak current	10 power gear box input	11 nominal speed gear box input	12 ratio gear-box	13 efficiency gear box	load limitations gear box			17 total weight motor + gear box	18 F _r (allow. radial shaft load)	19 F _a (allow. axial shaft load) ¹⁾	20 motor type	
													14 max. power	15 max. cont. torque	16 max. starting torque					
V	rpm	Nm	Nm	Nm	W	A	A	A	W	rpm	i	%	W	Nm	Nm	kg	N	N		
12 24	200	0,46 ²⁾	0,60 ²⁾	0,34	9,6	1,8 ²⁾	1,5	2,8 ²⁾	12	6000	30:1	80	9,6	0,46	0,60	0,55	30	0	GNM 2145C	
						0,96 ²⁾	0,81	1,5 ²⁾												
12 24	67	1,2 ²⁾	1,8 ²⁾	0,89	8,4	1,8 ²⁾	1,5	2,8 ²⁾	12	6000	90:1	70	8,4	1,2	1,8	0,60	30	0		
						0,96 ²⁾	0,81	1,5 ²⁾												
12 24	50	1,6 ²⁾	2,2 ²⁾	1,2	8,4	1,8 ²⁾	1,5	2,7 ²⁾	12	6000	120:1	70	8,4	1,6	2,2	0,60	30	0		
						0,96 ²⁾	0,81	1,4 ²⁾												
12 24	29	2,8 ²⁾	3,3 ²⁾	2,1	8,4	1,8 ²⁾	1,5	2,4 ²⁾	12	6000	210:1	70	8,4	2,8	3,3	0,60	30	0		
						0,96 ²⁾	0,81	1,2 ²⁾												
12 24	22	2,9 ²⁾	3,3 ²⁾	2,5	6,7	1,7 ²⁾	1,5	2,0 ²⁾	10	6000	270:1	65	6,7	2,9	3,3	0,65	30	0		
						0,88 ²⁾	0,81	1,1 ²⁾												
12 24	17	3,0 ²⁾	3,3 ²⁾	2,4	5,2	1,4 ²⁾	1,2	1,6 ²⁾	8,0	6000	360:1	65	5,2	3,0	3,3	0,65	30	0	GNM 2130C	
						0,64 ²⁾	0,56	0,76 ²⁾												
12 24	13	3,0 ²⁾	3,5 ²⁾	3,0	3,9	1,2 ²⁾	1,2	1,4 ²⁾	6,0	6000	480:1	65	3,9	3,0	3,5	0,65	30	0		
						0,54 ²⁾	0,54	0,65 ²⁾												
12 24	9,5	3,5 ²⁾	4,0 ²⁾	3,5	3,5	1,1 ²⁾	1,1	1,3 ²⁾	5,4	6000	630:1	65	3,5	3,5	4,0	0,65	30	0		
						0,51 ²⁾	0,51	0,60 ²⁾												
12 24	7,1	3,5 ²⁾	4,0 ²⁾	3,5	2,6	0,94 ²⁾	0,94	1,1 ²⁾	4,0	6000	840:1	65	2,6	3,5	4,0	0,65	30	0		
						0,44 ²⁾	0,44	0,51 ²⁾												
12 24	5,6	3,5 ²⁾	4,0 ²⁾	3,5	2,0	0,91 ²⁾	0,91	0,96 ²⁾	3,6	6000	1080:1	55	2,0	3,5	4,0	0,70	30	0		
						0,43 ²⁾	0,43	0,45 ²⁾												
12 24	3,2	4,0 ²⁾	4,0 ²⁾	4,0	1,3	0,77 ²⁾	0,77	0,77 ²⁾	2,4	6000	1890:1	55	1,3	4,0	4,0	0,70	30	0		
						0,36 ²⁾	0,36	0,36 ²⁾												
12 24	2,5	4,0 ²⁾	5,0 ²⁾	4,0	1,0	0,76 ²⁾	0,76	0,82 ²⁾	2,2	6000	2430:1	45	1,0	4,0	5,0	0,75	30	0		
						0,36 ²⁾	0,36	0,39 ²⁾												
12 24	1,9	4,0 ²⁾	5,0 ²⁾	4,0	0,78	0,67 ²⁾	0,67	0,71 ²⁾	1,4	6000	3240:1	55	0,78	4,0	5,0	0,75	30	0		
						0,32 ²⁾	0,32	0,33 ²⁾												
12 24	1,4	4,0 ²⁾	5,0 ²⁾	4,0	0,58	0,66 ²⁾	0,66	0,69 ²⁾	1,3	6000	4320:1	45	0,58	4,0	5,0	0,75	30	0		
						0,31 ²⁾	0,31	0,33 ²⁾												
12 24	1,0	5,0 ²⁾	5,0 ²⁾	5,0	0,53	0,65 ²⁾	0,65	0,65 ²⁾	1,2	6000	5880:1	45	0,53	5,0	5,0	0,70	30	0		
						0,30 ²⁾	0,30	0,30 ²⁾												
12 24	0,8	5,0 ²⁾	5,0 ²⁾	5,0	0,41	0,62 ²⁾	0,62	0,62 ²⁾	0,91	6000	7680:1	45	0,41	5,0	5,0	0,75	30	0		
						0,29 ²⁾	0,29	0,29 ²⁾												
12 24	0,5	5,0 ²⁾	5,0 ²⁾	5,0	0,24	0,58 ²⁾	0,58	0,58 ²⁾	0,60	6000	13230:1	40	0,24	5,0	5,0	0,75	30	0		
						0,28 ²⁾	0,28	0,28 ²⁾												
12 24	0,2	5,0 ²⁾	5,0 ²⁾	5,0	0,10	0,55 ²⁾	0,55	0,55 ²⁾	0,25	6000	30870:1	40	0,10	5,0	5,0	0,75	30	0		
						0,26 ²⁾	0,26	0,26 ²⁾												
12 24	0,1	5,0 ²⁾	5,0 ²⁾	5,0	0,06	0,54 ²⁾	0,54	0,54 ²⁾	0,15	6000	54880:1	40	0,06	5,0	5,0	0,75	30	0		
						0,25 ²⁾	0,25	0,25 ²⁾												

Tolerances ± 10 %

Columns 3 and 13

Values are valid at operating temperature after run-in period.

Columns 5 and 8

Current values should not exceeded during operation with undulatory current (single way rectification) with harmonic portion above 5%.

Columns 4 and 9

Figures correspond with the gearbox load limitations. For high gear ratios the allowed currents may be lower than the motors rated current. If so, please the current has to be limited, e.g. through adjusting the servo controller.

Columns 14, 15 and 16

To avoid gear box overload do not exceed the mentioned values. For oscillating operation the mentioned limitations must be multiplied by 0,75.

¹⁾ middle of the shaft-extension

²⁾ motor current must be limited to avoid excess of the mentioned value